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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,075	05/12/2005	Jean-Christopher Duclos	072691-015	7598

33401 7590 05/18/2009  
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EXAMINER
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PLUMMER, ELIZABETH A

ART UNIT	PAPER NUMBER
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3635

MAIL DATE	DELIVERY MODE
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05/18/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/522,075	<b>Applicant(s)</b> DUCLOS ET AL.	
	<b>Examiner</b> ELIZABETH A. PLUMMER	<b>Art Unit</b> 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-7 and 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-7 and 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant's amendments and arguments received 12/31/2007 have been entered and considered. Claims 2, 4 and 8 have been canceled. Claims 9-16 have been added. An examination of pending claims 1, 3, 5-7, and 9-16 is herein presented.

#### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a series of inner layer and outer plates" and oblong bores must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin (US Patent 5,471,905).

a. Regarding claim 1, Martin discloses a sandwich structure for protecting a fixed or mobile installation or equipment, said sandwich structure comprising an outer plate (110), the outer plate made of a very ductile material (abstract; column 3, lines 45-48) and designed to resist first impacts of projectiles, the outer plate having a full surface (Fig. 1) and a constant thickness over all of said full surface (Fig. 1), an inner layer (120) made from a very hard material (column 2, lines 38-44) to stop projectiles that passed through the outer plate (column 2, lines 56-60), spacers (130) for disposing the outer plates at a distance from the inner layer (Fig. 1), so that no part of the outer plate has any contact with the inner layer (Fig. 1), and fixing means (132,134) for fixing the outer plate to the inner layer at the location of the spacers.

b. Regarding claim 13, the outer plate has an entirely flat shape (Fig. 1).

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3. Claims 1, 7, 15 and 16 are rejected under 35 U.S.C. 102(a) as being anticipated by Lanz (EP 1182420A1).

a. Regarding claim 1, Lanz discloses a sandwich structure (Fig. 1, 2a) for protecting a fixed or mobile installation or equipment, said sandwich structure comprising an outer plate (2) the outer plate made of a very ductile material (paragraphs 21,22,23) and designed to resist first impacts of projectiles, the outer plate having a full surface (Fig. 3a,4) and a constant thickness over all said full surface (Fig. 3), an inner layer (1) made from a very hard material to stop projectiles that passed through the outer plate (paragraphs 1,2,3), spacers (9,6) for disposing the outer plates at a distance from the inner layer (Fig. 3a,4), so that no part of the outer plate has any contact with the inner layer (Fig. 3a,4), and fixing means (8, 10, 12) for fixing the outer plate to the inner layer at the location of the spacers.

b. Regarding claim 7, each spacer is provided with a threaded bore (Fig. 3a) having a first end a second end, said threaded bore being designed to hold, at said first end, an attachment screw (10) fixing the spaced onto the inner layer, and, at said second end, an attachment screw (12) fixing the outer plate onto the spacer.

c. Regarding claim 15, Lanz discloses a sandwich structure (Fig. 1, 2a) for protecting a fixed or mobile installation or equipment, said sandwich structure comprising an outer plate (2) the outer plate made of a very ductile material (paragraphs 21,22,23) and designed to resist first impacts of projectiles, the outer

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plate having a full surface (Fig. 3a,4) and a constant thickness over all said full surface (Fig. 3), an inner layer (1) made from a very hard material to stop projectiles that passed through the outer plate (paragraphs 1,2,3), spacers (9,6) for disposing the outer plates at a distance from the inner layer (Fig. 3a,4) ), so that no part of the outer plate has any contact with the inner layer (Fig. 3a,4), said spacers having bores (Fig. 3a), and fixing means (8, 10, 12) for fixing the outer plate to the inner layer at the location of the spacers, said fixing means extending through the bores and through holes of the outer plate (Fig. 3a, 3b, 4).

b. Regarding claim 16, the outer plate has a peripheral edge, and at least one of the spacers is interposed between the outer plate and the inner layer, at a distance from said peripheral edge (Fig. 3a,4).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US Patent 5,471,905). Regarding claim 5, Martin discloses the invention as claimed except to the inner layer comprising steel and the outer plate comprising aluminum. However, it would have been a matter of obvious design choice to form the inner layer

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out of steel and the outer layer out of aluminum, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

7. Claims 6, 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lanz (EP 1182420A1).

a. Regarding claim 6, Lanz discloses each spacer (9,16) is provided with a threaded bore designed to hold an attachment screw (12) fixing the outer plate onto the spacer. Lanz does not disclose the spacers being a hollow tubular shape. It would have been a matter of obvious design choice to form the spacers as a hollow tubular shape, as such a modification would have involved a mere change in shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1966).

b. Regarding claim 9, Lanz discloses the spacers (9,16) have bores (Fig. 3a,4) for the passage of the fixing means therethrough (Fig. 3a,4). Lanz does not disclose that the bores are oblong. However, it would have been a matter of obvious design choice to form the bores as oblong, as such a modification would have involved a mere change in shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1966).

c. Regarding claim 10, the bores are threaded and the fixing means include screws (Fig. 3a,4; paragraphs 14,31-34).

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d. Regarding claim 11, Lanz discloses the plates can define vehicle bodywork, the body being being covered on the outside by the outer plate (paragraph 1). Lanz does not disclose a series of inner layers and outer plates. However, it would have been obvious to one having ordinary skill in the art at the same time the invention was made to use a plurality of inner layers and outer plates, as it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In re Harza, 124 USPQ 378.

e. Regarding claim 12, Lanz discloses the inner layers of the series can be made of steel plates (paragraph 10).

8. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lanz (EP 1182420A1), as applied to claim 1 above, and further in view of Ladika et al. (US Patent 5,663,520).

a. Regarding claim 3, Lanz discloses the structure further comprising conducting elements (13) distinct from the outer plate (separate rib), said conducting element being fixed to said outer plate and extending between the outer plate (2) and inner layer (1) to provide electrical continuity between the outer plate and inner layer. Lanz does not disclose that each conducting element has a bore and attachment screws are disposed in said bores at a distance from the inner layer for fixing the conducting elements to said outer plate. However, it is well known in the art to make different sections of a product out of multiple parts, as making the parts separable would allow the conducting element to be



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changed if damaged. In re Dulberg, 129 USPQ 348. Furthermore, it is well known in the art that separable sections can be attached by bores with attachment screws disposed in said bores at a distance from the inner layer for fixing the element to the outer plate. For example, Ladika et al. teaches an outer plate (46) and inner layer (144) wherein a separate element (246,264) is attached via a bore with attachment screws disposed in said bores at a distance from the inner layer for fixing the element to the outer plate (Fig. 3,8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach the elements using a bore with attachment screws disposed in said bores at a distance from the inner layer for fixing the element to the outer plate, such as taught by Ladika et al., in order to make the element separable and removable.

b. Regarding claim 14, the elements are flexible enough to enable differential dilatations between the outer plate and inner layer (paragraph 14).

### ***Response to Arguments***

9. Applicant's arguments filed 12/31/2007 have been fully considered but they are not persuasive. Regarding applicant's argument that Patent '905 only discloses cells with ceramic material, not an inner layer, Patent '905 discloses both cells with ceramic material AND an inner layer. As the inner layer is made of a titanium alloy (column 2, lines 38-45), it is inherently hard. Also, the inner layer (120) is described as "sufficient to stop or significantly decelerate incoming projectiles such that it will be rendered ineffective", which also shows that the inner layer (120) is inherently quite hard.

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Regarding applicant's argument that EP '420 Patent does not show a plate with a constant thickness, while Fig. 1 has a varying thickness at the ends, Fig. 3a and 4 illustrate a plate with a constant thickness, as the section of conducting element (13) is not considered a part of the outer plate. The plate and conducting element can be considered distinct, as they are clearly defined different sections, and therefore the outer plate never touches the inner layer. (Alternatively, EP '420 Patent also discloses different embodiments where there is no contact between even the additional element and the inner layer (Fig. 2a)). Applicant's other arguments are moot in grounds of the new rejection above. Note, however, while applicant cites the basis in the specification for the additional limitations in the new claims, some of the matter included in the new claims is not actually shown in the drawings.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH A. PLUMMER whose telephone number is (571)272-2246. The examiner can normally be reached on Monday through Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeanette E Chapman/  
Primary Examiner, Art Unit 3633

/E. A. P./

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